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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

In the Matter of )

DIRECTV ENTERPRISES, INC. )

To Amend Parts 2, 25 and 100 )  
of the Commission's Rules to Allocate )  
Spectrum for the Fixed Satellite Service and )  
the Broadcasting Satellite Service )

RM No. 9118

JOINT REPLY

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Dated: August 15, 1997

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**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
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075-171773

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In the Matter of the Petition of )  
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DIRECTV ENTERPRISES, INC. )  
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To Amend Parts 2, 25 and 100 )  
of the Commission's Rules to Allocate )  
Spectrum for the Fixed-Satellite Service and )  
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RM No. 9118

**JOINT REPLY**

Digital Services Corporation, Microwave Services, Inc. and Teligent, L.L.C. (formerly Associated Communications, L.L.C.)(collectively, the "DEMS Licensees"), by their attorneys, hereby jointly reply to the comments filed in response to the above-captioned Petition for Rulemaking ("Petition") of DIRECTV Enterprises, Inc. ("DIRECTV"). DIRECTV's Petition requests, *inter alia*, that the Commission amend the Table of Frequency Allocations to allocate the 24.75-25.25 GHz ("24 GHz") band currently allocated to the Digital Electronic Message Service ("DEMS") for Earth-to-space feeder links for the Broadcast Satellite Service ("BSS"), allocate the 17.3-17.8 GHz ("17 GHz") band for space-to-Earth BSS downlinks, and adopt 4.5

degree BSS orbital spacing in these bands. The DEMS Licensees filed a Joint Opposition to this Petition on July 31, 1997 ("Joint Opposition").<sup>1</sup>

The comments filed in response to the DIRECTV Petition warrant the Petition's prompt dismissal. All of the commenters either oppose DIRECTV's Petition or, at minimum, echo the significant deficiencies and uncertainties in DIRECTV's proposals identified by the DEMS Licensees in their Joint Opposition. The Petition's flaws include the failure to demonstrate that demand for the requested spectrum outpaces supply, the absence of technical data supporting the requested orbital spacing adjustment to 4.5 degrees, and the failure to provide a thorough interference study supporting the technical feasibility of DIRECTV's proposals. These defects render DIRECTV's Petition untenable.

The commenters that support DIRECTV's Petition in principle fail to remedy these fatal flaws and, instead, acknowledge that further technical studies are needed to assess the feasibility of DIRECTV's proposals. Moreover, these commenters do not so much endorse DIRECTV's request as they advocate the allocation of additional spectrum for their own use in what is nothing less than an undisguised spectrum grab. Given the serious uncertainties raised by the DIRECTV Petition as well as the comments filed in response to it, initiation of a rulemaking to allocate additional BSS spectrum would be entirely inappropriate.

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<sup>1</sup>Comments also were filed by EchoStar Communications Corporation ("EchoStar"); GE American Communications, Inc. ("GE Americom"); Lockheed Martin Corporation ("Lockheed"); Loral Space & Communications, Ltd. ("Loral"); SkyBridge, L.L.C. ("SkyBridge"); and Bradford D. Carey, Esq.

**I. COMMENTERS PROVIDE NO EVIDENCE SHOWING THAT THE EXISTING BSS ALLOTMENT IS INADEQUATE TO MEET MARKET DEMAND**

Commenters provide no support for DIRECTV's assertion that the Commission should grant its Petition because "there is an inadequate amount of spectrum available for the provision of BSS service."<sup>2</sup> SkyBridge, in fact, correctly acknowledges that a number of licensed BSS systems are not constructed and that DIRECTV "has made no showing whatsoever that it has exhausted the technical capacity of its existing system or that its current channel capacity is inadequate to compete against, *e.g.*, existing cable systems."<sup>3</sup> Echoing the DEMS Licensees' own observation, SkyBridge rightly notes that in light of DIRECTV's failure to demonstrate need, DIRECTV's request "could readily be characterized as attempted warehousing."<sup>4</sup>

Commenters that reiterate DIRECTV's claim that there is a BSS spectrum shortage fail, like DIRECTV itself, to provide any evidence to support such a claim. For example, without any support, Lockheed asserts that "[t]here is simply insufficient capacity available for use in the United States in the planned BSS bands to support the development and expansion of new BSS businesses."<sup>5</sup> Similarly, Loral's claim that grant of DIRECTV's request for additional BSS spectrum in the 17 GHz and

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<sup>2</sup>DIRECTV Petition at 3.

<sup>3</sup>SkyBridge Comments at 7.

<sup>4</sup>*Id.*

<sup>5</sup>Lockheed Comments at 1.

24 GHz bands "would foster competition" also is entirely unsupported.<sup>6</sup> Like DIRECTV, Loral fails to offer any evidence that its current capacity is insufficient for it to compete effectively with other DBS systems or advanced cable television systems.

In addition, those commenters who support DIRECTV's proposal fail to reconcile the inconsistency of such an allocation with the International Table of Allocations. For the reasons detailed in the DEMS Licensees' Opposition, any BSS allocation in the 17 GHz band would be inconsistent with the international allocation for that band, which delays the effectiveness of an HDTV BSS allocation in the 17 GHz band until April 1, 2007.<sup>7</sup>

Similarly, commenters asserting general support for DIRECTV's Petition do not actually advocate adoption of DIRECTV's specific proposals as much as they are pursuing spectrum for their own particular purposes. For example, Lockheed urges the Commission "to refrain from viewing the proposed rulemaking as merely an allocation of additional spectrum for traditional BSS services" and to instead encompass in its allocation "digital, voice, data, and multimedia services" -- services that Lockheed has indicated it will provide through its Astrolink Ka-band Geosynchronous Orbit ("GSO") Fixed Service Satellite ("FSS") system.<sup>8</sup> Lockheed's self-serving position is even more evident in its characterization of DIRECTV's Petition as "overly simplistic" insofar as its proposal for 4.5 degree orbital spacing "would preclude the

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<sup>6</sup>Loral Comments at 2.

<sup>7</sup>See DEMS Licensees' Joint Opposition at 13-17.

<sup>8</sup>Lockheed Comments at 2.

significant benefits derived from providing complimentary Ka-band BSS and Ka-band FSS services using a single satellite dish because it would effectively prohibit the co-location of Ka-band BSS and Ka-band FSS satellites."<sup>9</sup>

## **II. COMMENTERS ARE CORRECT IN ACKNOWLEDGING THAT IN THE ABSENCE OF TECHNICAL SUPPORT, DIRECTV'S PROPOSAL FOR 4.5 DEGREE BSS ORBITAL SPACING IS UNTENABLE**

EchoStar, GE Americom and Lockheed are correct that DIRECTV's proposal to implement 4.5 degree orbital spacing in its proposed BSS allocation is untenable absent careful analysis of the effects of such a reduction in orbital spacing.<sup>10</sup> Furthermore, the fact that these commenters oppose DIRECTV's orbital spacing proposal for apparently conflicting reasons underscores the extent of uncertainty created by DIRECTV's Petition.

GE Americom cautions that DIRECTV's proposal should not be adopted without further industry study because "interested parties should explore whether

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<sup>9</sup>*Id.* at 3-4. As another example of the self-serving motives behind certain commenters' support of DIRECTV's Petition, EchoStar asserts that "with respect to each orbital location allotted to the U.S. under the Region 2 plan, only the DBS permittees with assignments at that location should be eligible to operate in the 17.3-17.8 GHz band in the space-to-Earth direction." EchoStar Comments at 3. Not only would the Commission's implementation of this proposal result in a spectrum windfall for EchoStar and other existing DBS permittees and licensees, granting them rights to spectrum that they do not presently possess, but it also would grant these DBS providers an unfair competitive advantage by vesting only them, and no new DBS providers or other competitors, with the right to use the 17 GHz band for reverse band working in the space-to-Earth direction.

<sup>10</sup>*See, e.g.*, EchoStar Comments at 2, Lockheed Comments at 3, and GE Americom Comments at 3-4.

spacing satellites *less than* 4.5 [degrees] apart would be feasible."<sup>11</sup> Similarly, as noted above, Lockheed advocates a spacing requirement narrower than 4.5 degrees, but only because such a narrow spacing would benefit its own Ka-band GSO FSS satellite system. By contrast, EchoStar warns that the Commission "should not experiment with narrower spacing (such as 4.5 [degrees]) unless it is conclusively demonstrated that high power BSS operations in the 17.3-17.8 GHz band can successfully coexist at such narrower intervals without causing harmful interference into adjacent satellite downlink or feeder uplink operations in the band."<sup>12</sup>

The uncertainties and disagreements evinced by these commenters over the feasibility of reduced orbital spacing affirm that DIRECTV's 4.5 degree BSS orbital spacing proposal, absent supporting technical studies, is not appropriate grounds for the initiation of a rulemaking proceeding.

### **III. COMMENTERS RAISE SIGNIFICANT INTERFERENCE CONCERNS THAT HIGHLIGHT THE INFEASIBILITY OF DIRECTV'S PROPOSALS**

Reiterating many of the points raised by the DEMS Licensees in their own Joint Opposition, the commenters express significant concerns regarding harmful interference anticipated from DIRECTV's proposed allocation -- concerns that DIRECTV left entirely unaddressed in its Petition. For example, EchoStar notes correctly that DIRECTV's reverse band working in the 17 GHz band "may cause electrical interference from the satellite transmitting in the space-to-Earth direction to the satellite

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<sup>11</sup>GE Americom Comments at 3 (emphasis added). *See also* Lockheed Comments at 3-4.

<sup>12</sup>EchoStar Comments at 2.

receiving feeder uplinks; and from the earth station transmitting programming in the Earth-to-space direction to neighboring receive dishes."<sup>13</sup> It recognizes that "these interference cases are especially serious in light of the characteristics of DBS service and the millions of homes that rely on DBS as their multi-channel video provider."<sup>14</sup>

SkyBridge, which has filed an application for authority to launch and operate its "SkyBridge System" in the 17 GHz band,<sup>15</sup> articulates similar interference concerns, asserting that the band-sharing between BSS and FSS providers in the 17 GHz band proposed by DIRECTV "may be quite problematic." SkyBridge notes that, even with the use of state-of-the-art antenna patterns and RF shielding, there is "the very real potential for SkyBridge Gateway . . . interference into DIRECTV consumer DTH dishes."<sup>16</sup>

For its own part, Loral recognizes that the "DIRECTV petition does not provide any detailed analysis of coordination issues" and "cautions against implementing any changes in the table of Frequency Allocations until adequate studies have been performed to determine the impact such changes would have on other wireless systems and service providers."<sup>17</sup>

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<sup>13</sup>*Id.* at 2.

<sup>14</sup>*Id.*

<sup>15</sup>*See* In the Matter of the Application of SkyBridge L.L.C. for Authority to Launch and Operate a Global Network of Low Earth Orbit Communications Satellites Providing Broadband Services in the Fixed Satellite Service, File No. 48-SAT-P/LA-97, filed February 28, 1997; Amendment, filed July 3, 1997.

<sup>16</sup>SkyBridge Comments at 5.

<sup>17</sup>Loral Comments at 5.



## **Conclusion**

The comments filed in response to the DIRECTV Petition argue forcefully in favor of its dismissal. Even those commenters who endorse DIRECTV's Petition in principle acknowledge and altogether fail to remedy any of the Petition's fatal flaws, noting instead the need for additional industry study in advance of contemplating implementation of the Petition's proposals. Thus, the grant of DIRECTV's Petition and the initiation of a rulemaking proceeding to allocate new BSS spectrum in

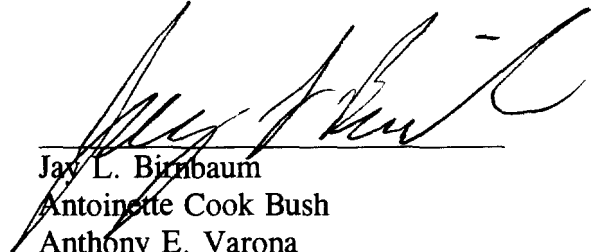
the 17 GHz and 24 GHz bands would be entirely premature and inappropriate. The Commission, therefore, should promptly dismiss DIRECTV's Petition for Rulemaking.

Respectfully submitted,



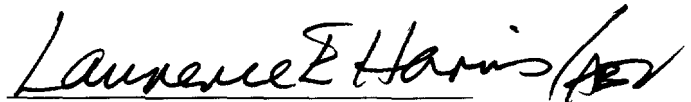
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Dated: August 15, 1997

## **CERTIFICATE OF SERVICE**

I, Maureen R. Harrigan, hereby certify that on this 15th day of August, 1997, true and correct copies of the foregoing Joint Reply filed by Digital Services Corporation, Microwave Services, Inc., and Teligent, L.L.C. were served by hand delivery or by First Class mail\*, postage prepaid, on the following parties:

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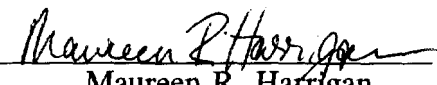
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